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Governor

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Executive Director

Dianne R. Nielson, Ph.D.

Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple

3 Triad Center, Suite 350

Salt Lake City, Utah 84180-1203

801-538-5340

July 9, 1990

TO: Board of Oil, Gas and Mining

THRU: Dianne R. Nielson, Director

THRU: Lowell P. Braxton, Associate Director, Mining *LPB*

FROM: D. Wayne Hedberg, Permit Supervisor *DWH*

RE: Request for Board Concurrence, Permit Transfer, Amount and Form of Replacement Reclamation Surety, Magnesium Corporation of America (Magcorp), Knolls Solar Evaporation Pond Project, M/045/022, Tooele County, Utah

The Division seeks the Board's concurrence and acceptance of the amount and form of replacement reclamation surety provided by Magnesium Corporation of America (Magcorp) for the Knolls Solar Evaporation Pond Project, in Tooele County, Utah. Magcorp has acquired this mining property from the previous operator, Amax Magnesium Corporation, and will now assume continued operations and reclamation responsibilities for this project area.

Attached is an Executive Summary of the permitted operation, a copy of the Permit Transfer form (FORM MR-TRL), a revised reclamation surety estimate (\$110,000 - 1995 dollars), and a new Reclamation Contract (FORM MR-RC) Agreement. Magcorp hopes to have a replacement corporate surety bond delivered to the Division by July 13th. Gulf Insurance Company is the surety providing/guaranteeing the surety bond. This company is on the 1989 Federally published list of companies found acceptable as sureties and reinsurers on Federal bonds. A copy of the surety bond will be forwarded to the Board upon the Division's receipt.

Thank you for your time and consideration of this permitting action.

dwh
Attachments
WMN2/27

DOGM MINERALS PROGRAM

CHECK LIST FOR BOARD APPROVAL
OF
FORM AND AMOUNT OF SURETY

Mine Name KNOLLS SOLAR EVAP. POND PROJECT

File No. M/045/022

Item	Provided		Remarks
	Yes	No	
Executive Summary	X		From Original Issuance of Permit
Location Map	X		
Reclamation Bond Estimate	X		Original Bond Estimate (REVISED)
Signed Reclamation Contract	X		
Signed Power of Attorney/ Affidavit of Qualification			Forthcoming
Bond			Forthcoming
Surety Signoff (Other State/Federal Agencies)		X	NA

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EXECUTIVE SUMMARY - NEW PERMIT
(June 1, 1987)

Mine Name:	<u>Knolls Solar Ponds</u>	I. D. No.:	<u>M/045/022</u>
Operator:	<u>AMAX Magnesium Corporation.</u>	County:	<u>Tooele</u>
	<u>238 North 2200 West</u>	New/Existing:	<u>New</u>
	<u>Salt Lake City, UT 84116</u>	Mineral Ownership:	<u>BLM and State</u>
Telephone:	<u>801-532-1522</u>	Surface Ownership:	<u>BLM and State</u>
Contact Person:	<u>Mr. Lee R. Brown</u>	Lease No.(s):	<u></u>
Life of Mine:	<u>20 years</u>	Permit Term:	<u>5 years</u>

Legal Description: Portions of Sections 5-8, 17-21, and 28-33, Township 1 North, Range 12 West; Sections 1-36, Township 1 North, Range 13 West; Sections 14, 23, 25, 26, and 36, Township 1 North, Range 14 West; Sections 4-6, 7-9, 18 and 19, Township 1 South, Range 12 West; and Sections 1-18, Township 1 South, Range 13 West; SLBM, Tooele County, Utah.

Mineral(s) to be Mined: Magnesium and associated mineral salts

Mining Methods: Solar evaporation operation; removal by loaders and scrapers

Acres to be Disturbed: 54,000 acres.

Present Land Use: Wildlife.

Postmining Land Use: Wildlife.

Variances from Reclamation Standards (Rule M-10) Granted: M-10(7) Roads and Pads, M-10(12) Revegetation, M-10(13) Dams, M-10(14) Soils

Soils and Geology:

Soil Description: highly saline, silty clays exhibiting poor soil development

pH: Not determined - alkaline

Special Handling Problems: Low erosion hazard, very flat topography.

Geology Description: West desert dry playa surface, Quaternary/late Pleistocene Lake Bonneville alluvial sediments.

Hydrology:

Ground Water Description: Ground water in the area occurs within a deep stratified aquifer in unconsolidated valley fill and a shallow brine aquifer near the surface of the valley fill. Neither aquifer contains potable water, as total dissolved solids concentrations often exceed 100,000 milligrams per liter.

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Executive Summary
M/045/022
June 1, 1987

Surface Water Description: No perennial or intermittent streams are found within the project area. The major surface water features in the general vicinity include the Great Salt Lake and the proposed west pond (to be created by the West Desert Pumping Project).

Water Monitoring Plan: None proposed due to the saline nature of the water resource.

Ecology:

Vegetation Type(s): The majority of the project will be constructed on mud flats. This vegetation type is generally devoid of vegetation due to the high salt content. Small greasewood shrubs and iodine bush are sparsely distributed at densities less than 5 percent. Dune areas are mainly of the greasewood type, dominated by greasewood, shadscale and four-wing saltbrush

Percent Surrounding Vegetative Cover: 0-5% for mudflats, 10-30% for dune areas

Wildlife Concerns: Minimal concerns, limited wildlife use, no T & E species

Surface Facilities: The proposed project consists of a 7.1 mile inlet canal, seven evaporation ponds, three small canals, four pump stations, and a 767 acre foot reservoir. Other associated facilities include a maintenance and office building, parking lots, on-site power facilities, and a 6.1 acre foot flush water reservoir.

Mining and Reclamation Plan Summary: See attached summary.

Surety:

Amount: \$1,737,900
Form: Bond
Renewable Term: 5 years

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ATTACHMENT

Mining and Reclamation Plan Summary
AMAX Magnesium Corporation
Knolls Solar Ponds
ACT/045/022

June 1, 1987

AMAX Magnesium Corporation has requested the use of approximately 54,000 acres of public lands nears Knolls, Utah for the development of the Knolls Solar Evaporation Pond System designed to produce brines for magnesium extraction at their existing plant in Rowley, Utah. The ponds would be located adjacent to a 320,000 acre lake (west pond) to be created by the West Desert Pumping Project.

During Operations:

- 1) Topsoil will be removed, stockpiled, and protected from erosion on all areas requiring revegetation.
- 2) Clay borrow areas will be stabilized and regraded to conform with the surrounding natural terrain.
- 3) Topsoil will be redistributed over the regraded area.
- 4) Standard agronomic practices will be used to prepare the seedbed for drill and/or broadcast seeding. The disturbed areas will be reclaimed with native vegetative species.

Following Operations:

- 1) All equipment, structures, and extraneous debris will be removed from the minesite.
- 2) Inlet and feed canals will be refilled and regraded.
- 3) Dikes will be breached in a manner that allows adequate drainage of the solar ponding area and restricts nonessential vehicular use.
- 4) All access and haulage roads not having an approved postmining land use will be reclaimed.
- 5) Interior dikes will be regraded. Exterior dikes will be reclaimed in a manner consistent with the approved postmining land determined by the Division and the Bureau of Land Management upon termination of mining activities.

Reclamation Estimate
Magnesium Corp. of America
Knolls Project Tooele County

May 31, 1990

M/045/022

Prepared by Utah State Division of Oil, Gas & Mining

Reclamation Plan Details

**Note--All Costs Taken From 1987 Division Estimate & Projected
to 1995--\$ Using 1.84% Escalation Factor (Total Area = 176 acres)

- No Reclamation of Haul Roads---Postmining Use*
- Grade Inlet Canal (52 acres), No. 2 Pump Feed Canal (12 acres),
No. 7a Inlet Canal (26 acres)*
- Round Edges of Interior Dikes & Pond 7a (46 acres)*
- Dismantle Maintenance Bld Area, Dismantle Pump Stations,
Grade Maint. Bld Pad & Reservoir Dikes (40 acres)*

Description	Units	\$/Unit	Cost (\$)
Inlet Canal	69 hr	128.99	8,900
No. 2 Pump Feed Canal	16 hr	131.25	2,100
No. 7a Inlet Canal	35 hr	128.57	4,500
Interior Dikes & Pond 7	50 hr	128.00	6,400
Dismantle Maint. Bldg. (3500 SF)	40 hr	277.50	11,100
Break & Bury Concrete (3500 SF)	40 hr	250.00	10,000
Dismantle Pump Stations	80 hr	262.50	21,000
Grade Bldg Pad & Reservoir Dikes	157 hr	142.68	22,401
SUBTOTAL			86,401
+10% CONTINGENCY			8,640
SUBTOTAL			95,041
+ ESCALATION			14,925
TOTAL			109,966
ROUNDED TOTAL IN 1995--\$			\$110,000



Magnesium Corporation of America

238 North 2200 West, Salt Lake City, Utah 84116
(801) 532-2043, Telex 6711664, Fax (801) 534-1407

RECEIVED
JUL 09 1990

**DIVISION OF
OIL, GAS & MINING**

July 9, 1990

D. Wayne Hedberg
Permit Supervisor
State of Utah Natural Resources
Oil, Gas & Mining
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Dear Mr. Hedberg,

Enclosed are completed Form MR-TRL Form & Form MR-RC for M/045/022 which are submitted at your request in order to cancel bond #524-12-30 posted on behalf of AMAX Magnesium Corporation. This bond is being replaced with another bond of \$110,000 from Gulf Insurance, 4600 Fuller Drive, Irving, Texas 75038 on behalf of Magnesium Corporation of America.

The completed page 7 of the Reclamation Contract and the Mined Land Reclamation Act Bond MR Form #5 will be forwarded to you later this week when Gulf Insurance completes them.

Your cooperation and assistance in processing this bond replacement request is appreciated.

Sincerely,

A handwritten signature in cursive script, appearing to read "Lee R. Brown".

Lee R. Brown
Vice President
Magnesium Corporation of America

Enclosures

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